



May 23, 2015

Lowell Planning Board
375 Merrimack Street
2nd Floor, Room 51
Lowell, MA 01852

**RE: RESPONSE TO COMMENTS ON PROPOSED STUDENT HOUSING
 AT MERRIMACK PLAZA**

Dear Board Members:

The following are our responses to comments from the various city departments on the above referenced project:

GENERAL

1.0 ENGINEER'S COMMENTS (MAY 6, 2016)

- Contractor needs to apply for all city construction permits.
- Engineering Office must be contacted for all site inspections. This includes drainage, paving, and water and sewer services.
- As-builts are to be electronic and submitted within 90 days of issuance of occupancy permit. Owner is responsible for the connection all the way to the main.
- Driveway permit is required.
- Trench permit is required.

These notes have been added to the plan.

- Water connection to street not shown on plans.
The water connection to the street is now shown on the plan.

- Page 2 Note 2: Cannot decommission the water main on site. What is proposed to relocate the city's water main out from under the building?
The Water Department is having their consultant assess whether there is a need to loop this water line. If it is not necessary, the line will be terminated. If looping is required, the pipe will be relocated to run along the southern side of the proposed building.

- Design of sewer service required for this review, NOT prior to building permit.
The revised sewer service is now shown on the utility plan.
- Do bounds need to be installed or reset?
An A.L.T.A. plan has been completed. In the process, a number of monuments were set. There are now an adequate number of monuments that should not be disturbed by the project. If the monuments are disturbed, new monuments will be set.
- A 20' wide loading alley next to building is tight for two large vehicles to pass.
Only one vehicle will use the west lane at any given time. The south lane is only for emergency vehicles. The lanes are 20 feet wide to comply with emergency vehicle access criteria.
- Loading spaces in front of building block both the fire lane and pedestrian walkway.
The loading spaces have been eliminated.
- No fire lane shown in back of building.
We have met with the Fire Department to discuss. We expect a favorable opinion from the Fire Department.
- Crosswalk pattern is to be Continental.
The plan has been changed.
- How do students get from the building to the bus stop? Right to access the passageway along the garage has not been demonstrated.
The students will walk on the existing sidewalk southerly to Father Mossisette Boulevard and then westerly on the existing sidewalk to the bus stop. Note, the proponent will run a private shuttle to and from the building entrance to various sites throughout the city.
- City work hours are 7:00 AM to 4:00 PM (M-F) and 7:00 AM to 12:00 PM on Saturday. Extended hours can be arranged with DPW permission.
A note has been added to the plans.

NOTIFICATION POLICY

Beginning, November 25, 2008, all city departments will require contractors and others doing work that will inconvenience businesses and residents to provide advance notice of all activity. Notice shall include the nature of the activity, the dates and time it will occur, the likely impacts, and a point of contact. Departments will inform contractors of this requirement when they apply for permits or schedule a police detail. Per City Council vote.

A note has been added to the plans.

STREET ISSUES

Utility connections in ROW require city standard trench details including Flowable fill as backfill material.

A detail has been added to the plans.

- Use city standard hydrants and details.
The detail has been revised.
- Curbing on city streets must be vertical granite, VA-4.
- Sidewalks will all be repaired or replaced.
- All concrete sidewalk work must involve full panels.
Notes have been added.
- Handicap ramp on both sides of the street are required.
No city streets are involved. Handicap ramps will be installed at all approximate locations.
- Detectable warning pads: panels must be installed per mfg. instructions.
A note has been added.

STORMWATER

- Annual Stormwater Operations and Maintenance (O&M) reports must be filed with Engineering.
We will comply with this requirement.
- O&M logs and reports not presented.
The O&M logs were included in the Erosion and Sedimentation Control Procedures report that was filed with the Conservation Commission.
- Contact name must be submitted to Engineering for Stormwater Annual Operations and Maintenance reports.
That is included in the Permanent Stormwater System Operations and Maintenance Program report submitted to the Conservation Commission.
- Construction site entrance must be shown on plans.
- Location of dewatering and discharge to be shown on plans.
These have been added to the Demolition and Erosion and Sediment Control Plan.
- Catchment areas (pre- and post-construction) must be shown on plans.
Separate pre- and post-catchment area plans are enclosed.
- Location of erosion control to be shown on plans.
This has been added to the Demolition and Erosion and Sediment Control plan.

- Condition of erosion controls must be checked after every weather event. Repairs and maintenance must be performed within 24 hours.
Inspection requirements are noted in the Erosion and Sedimentation Control Procedures report that was submitted to the Conservation Commission. It will also be in the SWPPP.
- Does outfall into wasteway currently exist? If not, permission from Enel is required.
Yes, discharge to the canal currently occurs.
- DMH8 needs to be a treatment feature.
Stormwater treatment has been provided for all roadways that are subject to regular motor vehicle traffic which is a significant source of pollution. DMH8 receives runoff from the roof which is considered clean runoff and from the pedestrian walkways which are also considered clean sources of runoff. The major volume of clean roof runoff would make a DMH8 treatment system relatively ineffective.
- What is the water elevation in the wasteway? Is it above the outfall? How is the backflow being prevented?
The water elevation in the canal is approximately elevation 64 and the lowest ground elevation in the project is 76.35. Therefore, backflow is not a concern. Note the ground elevation on the top of the bank of the waterway is 73, therefore, the waterway will overflow its banks long before a backflow to the subject site's low point will be a concern.
- Narrative, paragraph 3.0 is in conflict with notes on the plans. Plans state soils will be reused on site. Narrative states unsuitables will be removed.
It is projected that all on-site soils will be reused on-site, however, if unsuitable soil is unexpectedly encountered as sometimes occurs on old abandoned mill sites, the proponent has committed to properly dispose the material.
- Stormwater calculations show no improvement in runoff pre- and post-construction for any of the 2, 20 or 100 year storms. Improvements are required under MA Stormwater regulations.
There is no requirement in the MA Stormwater regulations to decrease the rate of flow. However, the quality of the runoff will be improved. Currently, there is over an acre of untreated parking lot runoff that is discharging directly to the resource area. Under proposed conditions, mostly clean runoff will exist and the minor amount of paved area will be treated resulting in a dramatic improvement in the quality of runoff.
- NPDES Permit is required.
We agree. It will be generated prior to construction.

Snow and Ice

- Snow disposal onto the city ROW is strictly prohibited.
A note has been added to the plans.

2.0 FIRE PREVENTION BUREAU COMMENTS

1. Plans do not show any hydrants on the property in support of the sprinkler/standpipe system for the building IAW 527 CMR 18.1.3.2.
Hydrants have been added to the east and near the southwest corner of the proposed building.
2. Fire Dept. Vehicle access is less than satisfactory for the following reason.
 - a. Requires a swept path analysis using vehicle turn simulation software IAW 527 CMR 18.1.1.3
Attachment A presents a sweep path analysis.
 - b. There is significant concern regarding fire department access to the building frontage facing French St.:
 - I. Fire access road is in excess of 15' and requires vehicle turn around IAW CMR 18.2.3.4.4
 - II. There is a question of whether this access road will be capable of supporting the imposed of our fire apparatus 527 CMR 18.2.2.1.1.1.
 - III. The current configuration of the loading dock area may inhibit apparatus access. More information is needed.
A structural analysis is currently underway to confirm that the existing bridge over the canal on the east end of the southern fire lane has the structural capacity to support a 40 ton fire truck. As long as that is confirmed, there will no need to provide a truck turnaround. Enclosed in Attachment B is information that demonstrated that the grass pave system can support the fire vehicles. The loading spaces will be relocated or eliminated so there is no blockage of emergency vehicles.
 - c. All parts of the 1st floor of the building are not within 150' of a fire department access road IAW 527 CMR 18.2.3.2.2.
There is a 24 foot wide paved access drive on the abutting parcel to the north which, in combination with the on-site access drives will provide access to all parts of the first floor of the building (within 150 feet of those drives).

3.0 SENIOR PLANNER (MAY 6 COMMENTS)

- The applicant proposed to demolish the existing building, with unsuitable material to be hauled to a licensed disposal site and pavement and building slabs to be demolished on site or hauled off-site. There should be a plan sheet showing the erosion control, limit of work, soil stockpile and construction material stockpile areas and detail should be provided for the construction entrance. The site layout should also include snow storage

areas.

The erosion control, limit of work, soil stockpile, construction stock pile areas are now shown on the Demolition and Erosion Control Plan. The construction entrance detail is shown on the detail plan. The snow storage areas are shown on the site layout plan.

- The applicant plans to treat stormwater runoff with a treatment system to be installed in parallel with an existing catch basin. Roof runoff will be directed to existing catch basins. The applicant has stated that no new storm water discharge (untreated) will be conveyed to wetlands or waterways. The stormwater system will be reviewed by the city engineer.

No response required.

- The applicant has provided a narrative describing the erosion and sediment control measures; however, an erosion and sediment control plan has not been provided.
The erosion and sediment controls are shown on the Demolition Plan which is now entitled "Demolition and Erosion Control Plan".

4.0 UMASS OFFICE OF SUSTAIN ABILITY COMMENTS

- As a policy, UMass Lowell transportation does not service private property. We only serve university owned, leased property. In the meetings between Vision Development and UMass Lowell referenced above, it was explicitly stated that the university would not create a bus stop on private property. It was stated that we would consider increasing the service (hours, routes, and days to the Ayotte Garage, which they could piggy back on if they were willing to pay for the entire differential cost of the expanded hours and routes. The cost for this additional service was provided to Mr. Warren.

The proponents will provide their own shuttle service.

- As the proposed development is an off-campus property, we would treat any UMass Lowell student tenants as commuters and they may be eligible to purchase on campus parking as determined by our commuter student parking policies. The University could not apply different parking access rights to student tenants of this facility, they would be treated the same as any other student living in off-campus housing. The project narrative points to 228 parking spaces being available (French St. / Parking Pass arrangement with City). This could result in additional trip generation from the proposed developments.
The potential additional trip generation is less relevant since the proposed facility will provide the shuttle for these existing students.

5.0 TRANSPORTATION DIVISION OF PLANNING DEPARTMENT COMMENTS

- Parking provided in the adjoining Ayotte Garage (180 spaces) and parcel 2 (48 spaces) exceeds the required 219 spaces needed for a 438 bed dormitory.
- Traffic entering / exiting the site will be minimal for various reasons, including:
 - Majority of vehicles will be parking in Ayotte Garage and using the Arcand Drive / F. Morissette signalized intersection;

-Students will tend to walk, bike, or ride the UML shuttle buses.

No response necessary.

- There is an inadequate number of handicap parking spaces provided.
There are 47 parking spaces in the southeast parking lot. The Americans with Disabilities Act regulations and the MA Architectural Access Board Regulations required 2 handicap spaces for 50 parking spaces or less, therefore, there are enough handicap parking spaces.
- Pedestrian access from the dormitory to French Street and the front of the Ayotte Garage is limited and needs improvements.
The pedestrian access has been modified.
- UML has stated that students at private dorms are treated as commuters and that the university will not provide shuttle service to the development unless the developer paid for it. This issue needs to be resolved since it will determine overall traffic generation / distribution.
The facility will provide its own shuttle service.

Recommendations

- Based on these findings, the following recommendations are respectfully submitted:
 1. The private road running along the northern edge of the Ayotte Garage - from the entrance of the dormitory to River Place - needs the following improvements:
 - a. Install sidewalks,
 - b. Install security lighting - the electric bill to be paid by the developer and
 - c. Coordinate with the owner of the property to develop these improvements.*This 20 foot wide motor vehicle drive is too narrow to safely accommodate pedestrians. This is private property that has no relationship to the proposed development. All pedestrian traffic will be directed southerly to the sidewalk that runs alongside Father Morrisette Boulevard.*
- The crosswalks through the trolley lines need to be ADA compliant.
A note has been added to the plans.
- The traffic circle in front of the dormitory entrance needs to be redesigned.
 - a. the ADA aisle between the two handicap parking spaces cannot be used as part of the crosswalk as shown - it is therefore ADA van accessibility.
There is no rule in the ADA regulations stating there cannot be dual use of the aisle, however, the aisle between the two handicap spaces has been widened to be 12 feet wide which provides for a 4 foot wide pedestrian space in addition to the requisite 8 foot width for van access. Note that less than one percent of the time will anyone be unloading a wheelchair. The rest of the time, the full width will be available for pedestrians. This is how most of the facilities throughout Massachusetts have been designed.

b. Perhaps the pagoda with the signs can be moved to create a more uniform turnaround area.

The sign will be relocated.

c. A stop bar needs to be painted at the intersection with the riverside apartments' driveway.

A stop line has been added.

d. One way signs need to be installed to make counter-clockwise traffic circulation around the island evident to the public.

One way and "keep right" signs have been added.

4. Recommend coordination with NPS to re-stripe / sign the trolley crossing areas.

This will be done and should be a condition of the approval.

5. There are two loading zones in front of the sidewalk / fire access on the south side of the building - these cannot be located there since they block fire access and pedestrian access.

The loading areas are eliminated.

6. It is unclear how the pedestrian flow from Parcel II parking lot to the dormitory is achieved. If pedestrian access is over the canal way and the trolley tracks - coordination with NPS is required and these crossing need to be ADA compliant.

The access will be westerly along the existing French Street sidewalk. The entire pathway will be ADA compliant.

6.0 SENIOR PLANNER MAY 10 COMMENTS

Fire Safety

- The two loading docks are blocking access for fire / safety vehicles to the 20 foot wide sidewalk / grass paved road. Since the applicant is requesting a variance for the number of loading bays, there should be detail.

The two loading spaces will either be relocated or eliminated. The apartments will be fully furnished, so daily deliveries will typically be U.S. mail, UPS and Federal Express. Five deliveries of 15 minute duration are an average daily projection.

Transportation / Access

- The proposed access to the front entrance does not have a uniform width and could be difficult for loading vehicles to access the loading docks located on the northwest end of the building. The applicant should contact Princeton Properties regarding the potential relocation of the sign / gazebo that is located near the proposed entrance. This would allow for a more uniform entrance-way. See attached comments from the Transportation Engineer for more details.

The entrance drive has been modified. The proponents have met with Princeton Properties and the sign relocation will take place.

Stormwater

- The grading and drainage plan indicated a 'hydro first defense' system to be located at CB-2. CB-5 is at the end of the drainage line that services several CB. The applicant should consider locating a treatment structure at the location.

The treatment system has been designed to treat the impacted runoff. It would be counter-productive to attempt to treat the clean roof runoff in addition to the impacted runoff. The result would be less treatment.

Water and Utilities

- There is no depiction on the plan of the existing sewer or water lines currently located in French Street and Fr. Morrisette Blvd. Also, the gas line is shown to be located under the proposed building. The city will require that the gas line be moved. Also, the applicant should contact the engineering, water and sewer departments to determine the size and type of the existing water and sewer lines. All information regarding existing lines and proposed lines along with the proposed connections to those lines have to be depicted on the plan and have to be reviewed and approved by the appropriate city departments before the plan is approved by the Planning Board. See Water Department comments for more details.

The City Departments were unable to provide us with the size or locations of any of the utilities in the City street or on the site. All utilities that are under the proposed building will be removed or relocated. The water main will be re-routed around the south side of the building if necessary. The proposed sewer service will be connected to the existing sewer manhole that is shown on the plans. The gas line will be connected as shown on the plans.

The Water Department is having their consultant assess whether there is a need to loop this water line. If it is not necessary, the line will be terminated. If looping is required, the pipe will be relocated to run along the southern side of the proposed building.

Environmental

- There should be a plan sheet showing the erosion control, limit of work, soil stockpile and construction material stockpile areas and detail should be provided for the construction entrance. The site layout should include snow storage areas. See Conservation Commission comments for more details.

All of this has been added to the Demolition and Erosion Control Plan except for the snow storage areas which are on the site layout plans.

7.0 WATER DEPARTMENT COMMENTS

- The water department at this time is going to have to reject these plans as submitted. I did meet with Prime Engineering onsite to review what they wanted done and we explained

to them that we have a 20" water main, and a 16" water main where they proposed to put the building. I did explain to them what they had to do if they what to put this building there. The water main is a Locks and Canal water main from 1900s when there was 2 mills. Both of those water mains would have to be relocated. Based on footage, there does not look to be much space there to place a 20" water main because of the trolley tracks. Looking at the maps they provided, I only see about 10 to 15 feet between their foundation to the trolley tracks. Prime Engineering told me Friday April 29th that they are going to put something together to see if the water department would approve but as of right now we have nothing.

If the Water Department's consultant determines that there is a need for a looped system, the water main will be relocated to run south of the proposed building.

Sincerely,

PRIME ENGINEERING, INC.



Richard J. Rheume, P.E., LSP
Chief Engineer